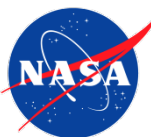




NASA's Short-term Prediction Research and Transition (SPoRT)



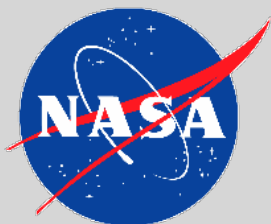
transitioning research data to the operational weather community



Short-term Prediction Research and Transition (SPoRT)

SPoRT is focused on transitioning unique NASA and NOAA observations and research capabilities to the operational weather community to improve short-term weather forecasts on a regional and local scale.

Research To Operations (R2O)

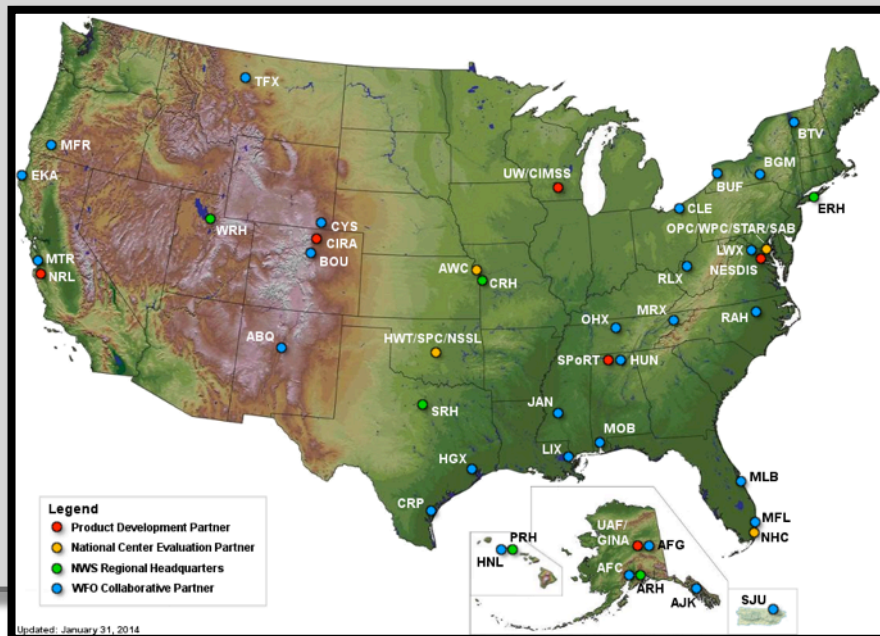


SPoRT Partnerships and End Users

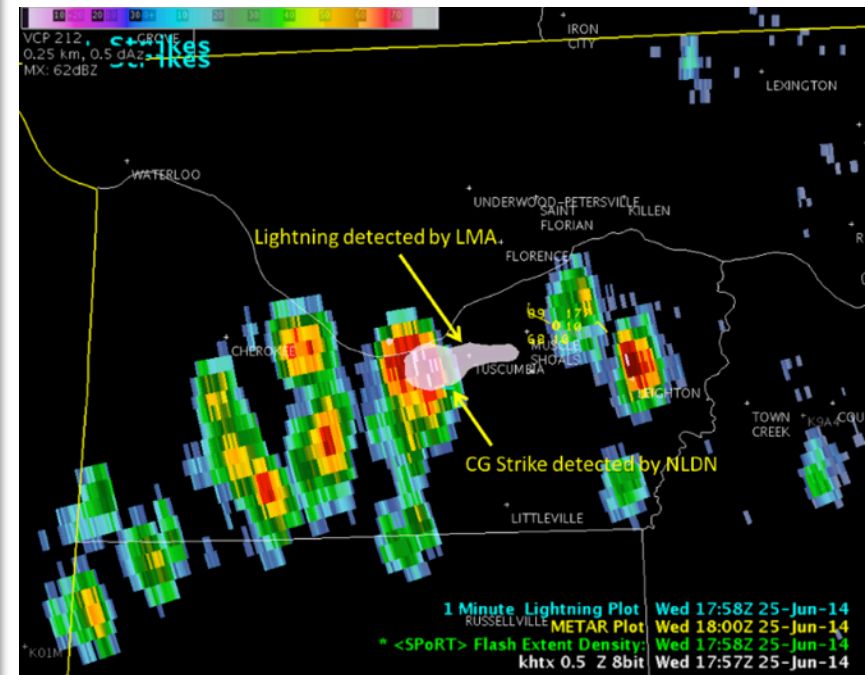
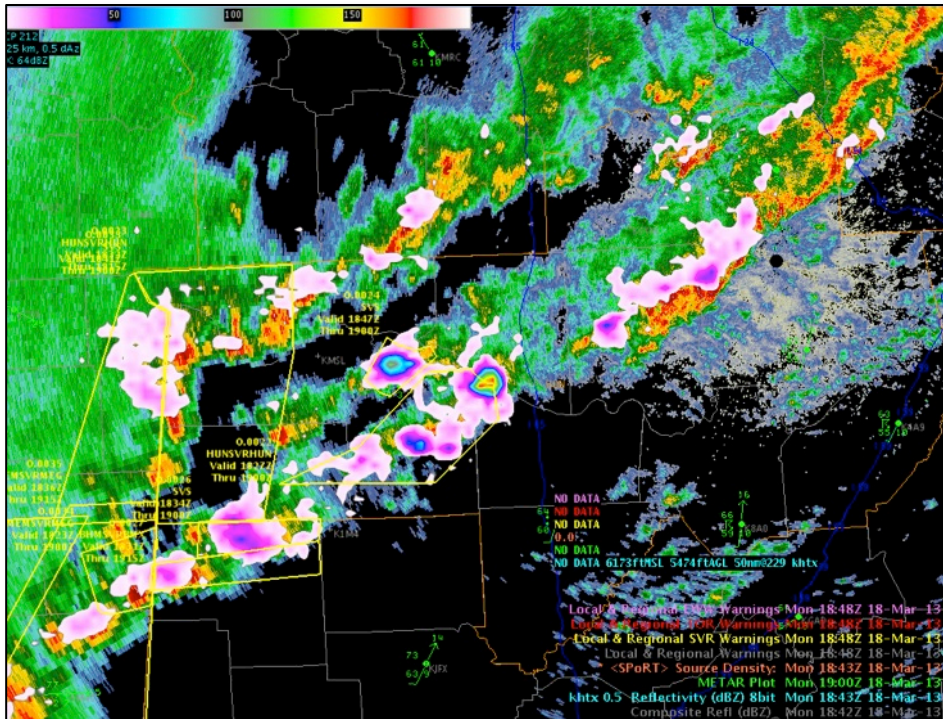
Partnered with NOAA / University community / DoD (NRL)

End users

- regular interactions with >25
 - National Weather Service Forecast Offices
 - River Forecast Centers
- National Weather Service National Centers



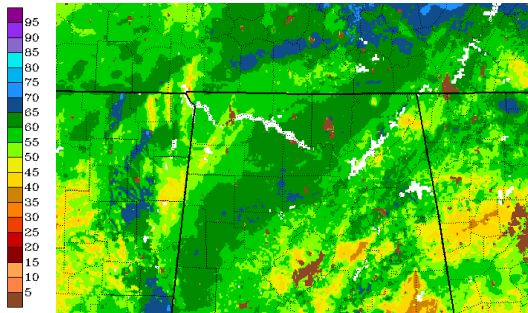
Lightning



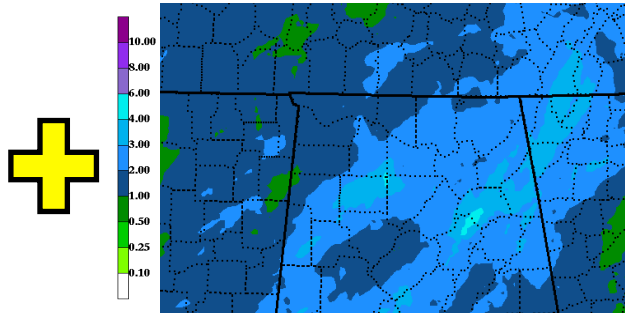
Flood Potential Using Land Surface Modeling

March

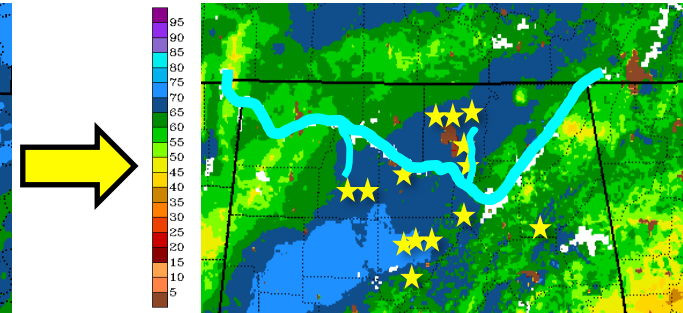
Moderate antecedent soil moisture



Moderate-heavy precipitation

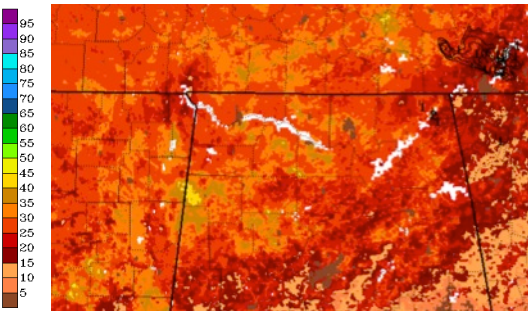


Moderate river flooding and numerous flooding reports

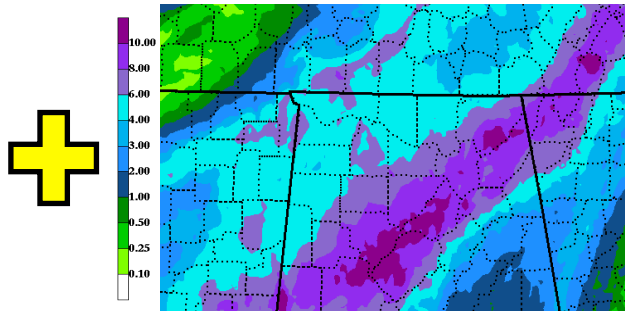


September

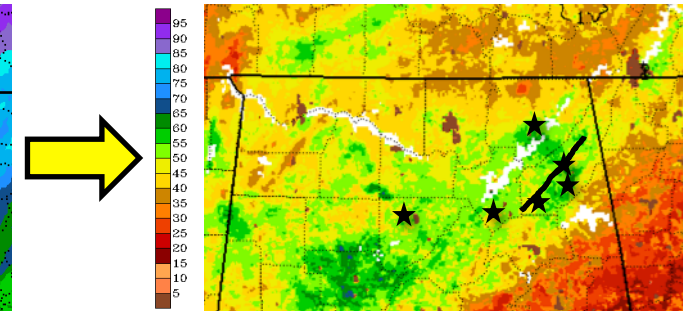
Low antecedent soil moisture



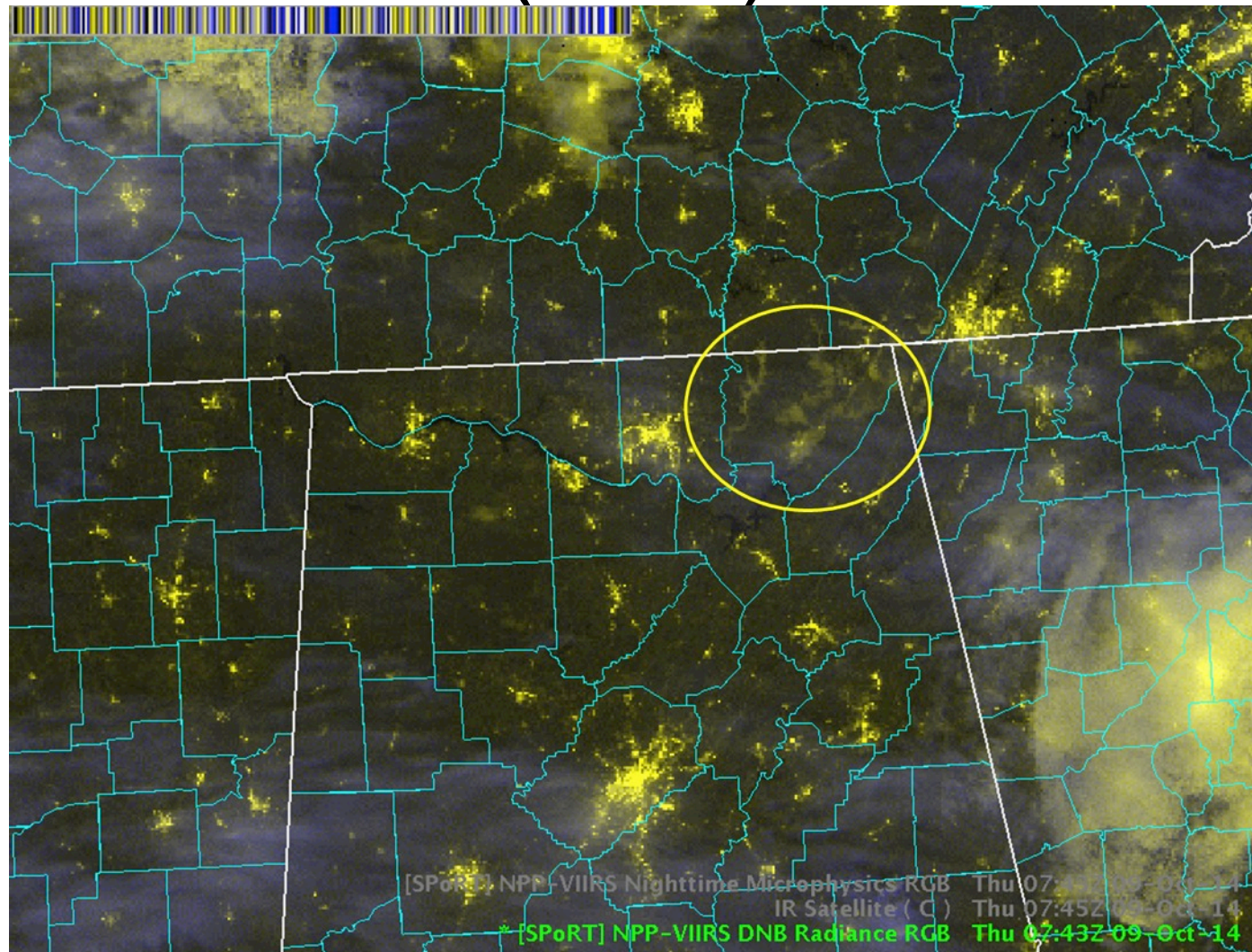
Heavy precipitation



Isolated minor flooding

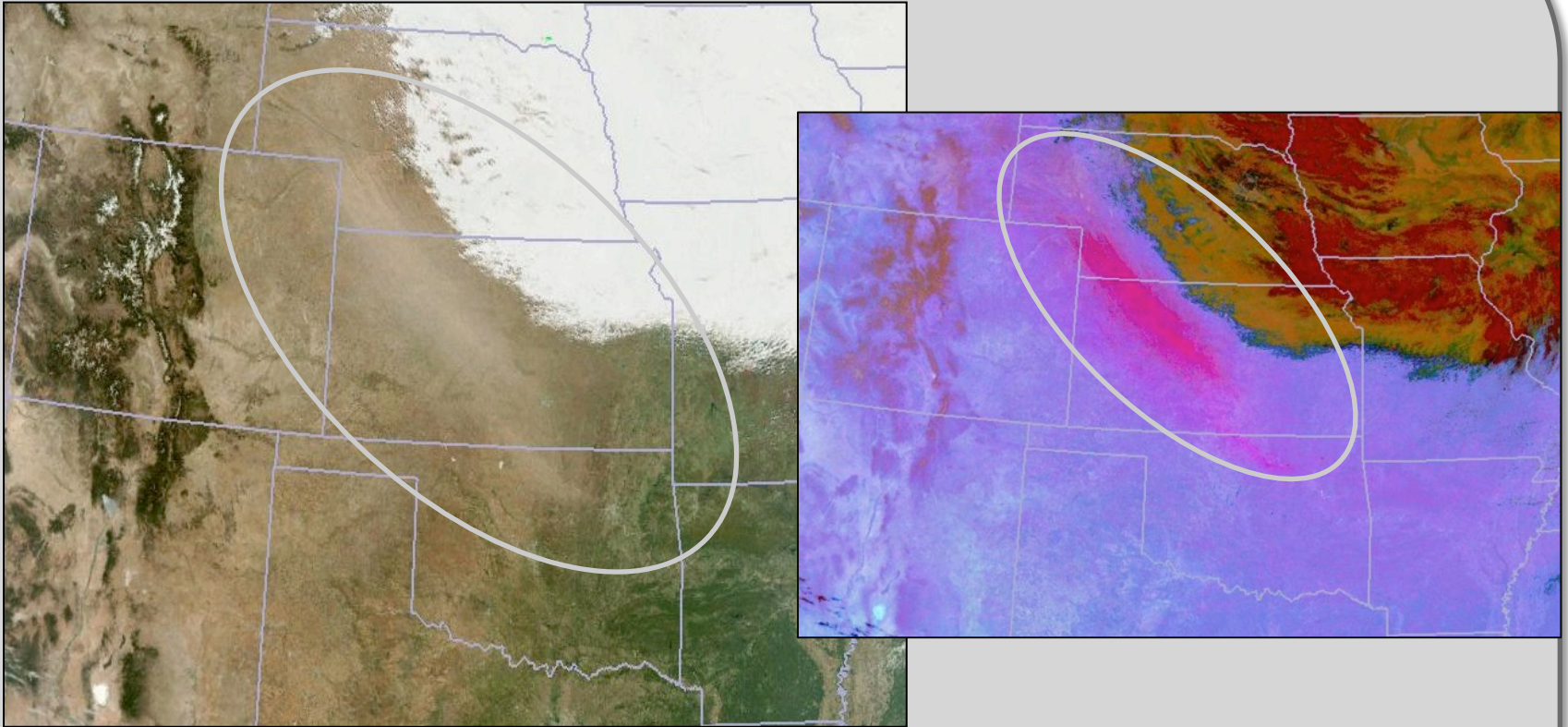


Case Study (DNB)



Unique SPoRT Products

Dust Identification



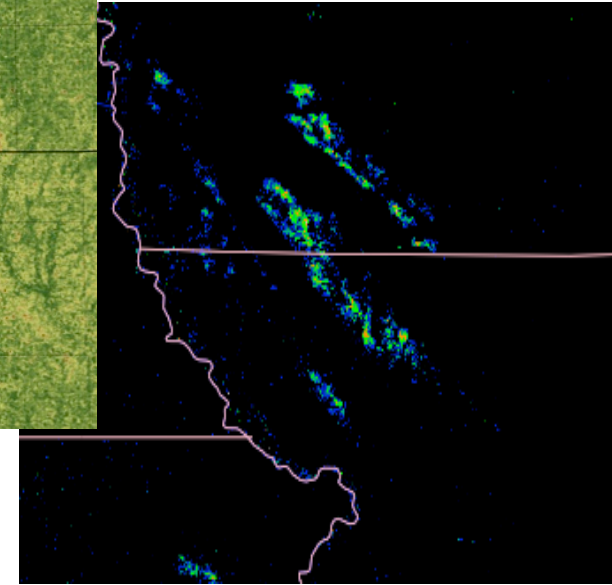
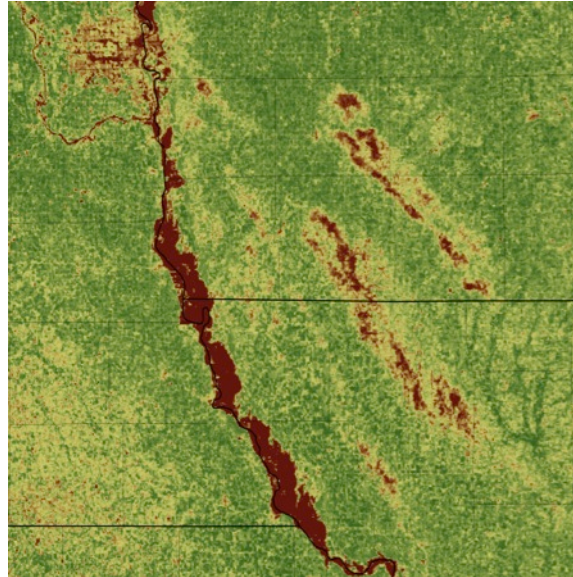
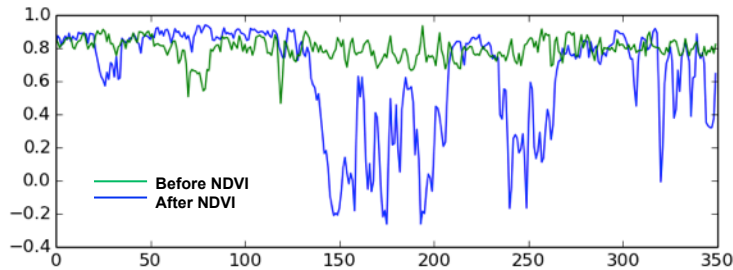
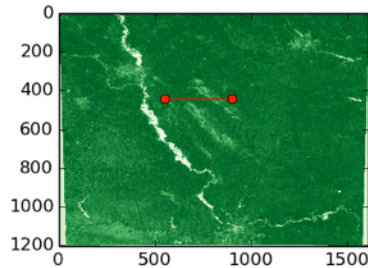
MODIS Air Mass Product



Hail Damage Swath Detection in Satellite Imagery

Damage surveys are rarely conducted for hail storms.

Satellite data can be used to detect the damage scars from hail just like for tornados.

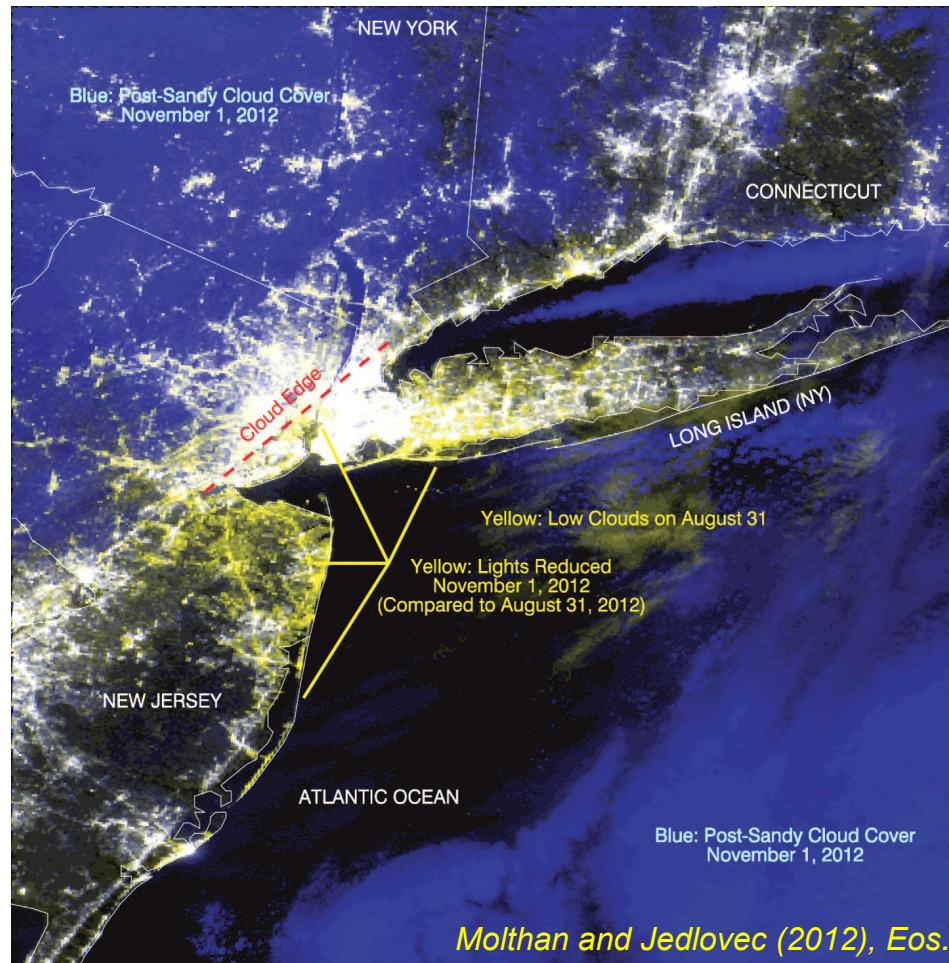


Use of thresholds in a change detection algorithm has proven useful in developing an automated technique.

- improve the accuracy of records kept on hail events
- applications to mapping tornado damage tracks, mudslides, and burn scars

Using the VIIRS DNB to Detect Outages and Recovery

False Color “Blackout” Composites



**Blackout composite derived from the VIIRS DNB
on November 1, 2012 following Superstorm Sandy.**

Questions / Comments ?



transitioning research data to the operational weather community

